theless, a fact, proved by the evidence derived from a study of the pelagic sediments, that these areas are of extreme antiquity. It is indeed almost beyond question that the red clay regions of the Central Pacific contain accumulations belonging to geological ages different from the present. In order to account for the accumulation of all these substances in such relatively great adundance in the areas where they were dredged, it is necessary to suppose the oceanic basins to have remained the same for a vast period of time."

Explanation of Plate N.

Fig. 1. Diatom ooze seen by transmitted light. Lat. 53° 55′ S., long. 108° 35′ E.; 1950 fathoms; $\frac{200}{1}$.

Fig. 2. Radiolarian ooze seen by transmitted light. Lat. 11° 24′ N., long. 143° 16′ E.; 4475 fathoms; $\frac{100}{1}$.

Fig. 3. The finer portions of a Globigerina ooze, showing Coccospheres, Coccoliths, and Rhabdoliths. Lat. 38° 50′ S., long. 169° 20′ E.; 275 fathoms; $\frac{800}{1}$.

Fig. 4. The finer portions of a Globigerina ooze, showing Coccoliths and Rhabdoliths. Lat. 21° 15′ S., long. 14° 2′ W.; 1990 fathoms; $\frac{1500}{1}$.

Fig. 5. "Fine washings" of a Globigerina ooze after removal of the carbonate of lime by dilute hydrochloric acid, formed of exceedingly minute particles of argillaceous matter, along with fragments of organisms and minerals, coloured brown by oxide of iron and manganese. The drawing shows the ordinary characters of the "fine washings," which are nearly identical with the great mass of the red clay. Lat. 21° 15′ S., long. 14° 2′ W.; 1990 fathoms; $\frac{1500}{1}$.

Fig. 6. Ordinary characters of the minerals in a deep-sea deposit. All are of volcanic origin, being volcanic ashes, microscopic fragments of pumice, and vitreous fragments transformed into palagonite. Associated with these are fragments of felspars and augite. Lat. 27° 54′ S., long. 13° 13′ W.; 1890 fathoms; $\frac{350}{1}$.

Fig. 7. Glauconitic casts of Foraminifera and other organisms from a green mud seen by reflected light, after removal of the carbonate of lime in the deposit by dilute hydrochloric acid. East coast of Australia; 410 fathoms; $\frac{85}{1}$.

Fig. 8. The ordinary characters of the mineral particles of a terrigenous deposit; rounded fragments of quartz predominate, being sometimes coated with limonite; there are besides fragments of glauconite, felspars, and other minerals. Compared with fig. 6, the differences between the mineral particles in a deep-sea and a terrigenous deposit will be observed. Blue mud, coast of Scotland; 540 fathoms; $\frac{30}{1}$.

Fig. 9. Pteropod ooze seen by reflected light. Lat. 18° 24′ N., long. 63° 28′ W.; 450 fathoms; $\frac{1}{1}$.

Fig. 10. Globigerina ooze seen by reflected light. Lat. 21° 38′ N., long. 44° 39′ W.; 1900 fathoms; $\frac{25}{1}$.

Ascension.

On the 27th March, at 5 P.M. the ship anchored at Ascension. Early in the morning of that day, at 10 A.M., the wind suddenly shifted to the westward in a heavy rain squall, with quite a tropical downpour, lasting an hour and a half, during which it was necessary to "lay to." The rain did considerable damage on shore, washing away some of the roads, &c., and the sea was quite discoloured for at least a mile to the northwest of the island.